

CLAIMS

1. A syringe (1) of non-reusable type comprising: a container (3), a rod (2) cooperating with the container, a piston unit (12) inserted in and reciprocally disposed in the container, and a needle (6), the rod (2) being, by the intermediary of an axial displacement movement, reciprocally disposed in said container (3) and displaying, in its one end portion enclosed by the container, a first coupling device (13a) within a two-part coupling arrangement (13) whose second coupling device (13b) is related to said piston unit (12), and where said two coupling devices (13a, 13b) assume a mutually cooperating and active position while the piston unit (12) is, by the movement of the rod (2), displaced from a position closely adjacent the needle (11) to a position distal from the needle and gradually brings said coupling devices (13a, 13b) towards and to an inactive position, while the piston unit (12) is, by the movement of the rod (2), displaced from the position distal from the needle towards and/or to the position closely adjacent the needle, the two coupling devices (13a, 13b) permitting, in an inactive position, an axial movement of the rod (2) to take place without cooperation with the piston unit (12), **characterised in that** said second coupling device (13b) is provided with means (10) coordinating with a piston (12') within the piston unit (12).
2. The syringe as claimed in Claim 1, **characterised in that** said means (10) displays a sub portion (10a) adapted for a rotary cooperation with a recess (12a) in the piston unit (12).
3. The syringe as claimed in Claim 2, **characterised in that** said means (10) displays a supporting sliding surface (10b) facing towards a sliding surface (12a') provided on the piston (12').
4. The syringe as claimed in Claim 2 or 3, **characterised in that** in any event one of said sliding surfaces is of planar or substantially planar configuration.
5. The syringe as claimed in Claim 1, **characterised in that** said means (10) displays a portion (11) facing inwardly in the container (3) with a sliding surface associated

with the coupling device and given a configuration and a curvature associating to a cylindrical helix and/or to a conical helix.

5 6. The syringe as claimed in Claim 5, **characterised in that** the portion of the means (10) facing inwardly in the container displays a support surface oriented transversely of a centre line (1') to the means.

10 7. The syringe as claimed in Claim 1, **characterised in that** a support surface associated with said first coupling device (13a) is in the form of a catch oriented transversely of a centre line (1') to the means.

15 8. The syringe as claimed in Claim 6 or 7, **characterised in that** said support surfaces (13c, 13d) are adapted with a total covering area so that they together form a surface extent which is less than a cross section of the container (3).

9. The syringe as claimed in Claim 8, **characterised in that**, in said inactive position, said support surfaces (13c, 13d) are disposed laterally related and free from one another for a free passage of the support surface associated with the rod (2) past the support surface associated with the piston unit (12).

20 10. The syringe as claimed in Claim 2, **characterised in that** said sub portion (10a) is given a spherical configuration.